

**Appendix B to
“A Method for Developing Mariner Assessments”**

**MARINER ASSESSMENT PROCEDURES FOR THE
PERFORMANCE OF HELMSMAN DUTIES**

This appendix contains example procedures for assessing a mariner’s ability to perform *helmsman duties*. The assessment package consists of the following: assessor instructions, candidate instructions, five assessment worksheets, and an assessment control sheet for documenting the final results of the assessment.

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ASSESSOR INSTRUCTIONS

Introduction

The following procedures are designed for assessing a candidate's ability to perform helmsman duties. The assessment includes demonstrating the use of all steering and compass equipment; performing steering procedures in open waters; and performing steering procedures in shallow water while maneuvering. It also includes demonstration of steering by visual range or landmark.

The assessment materials include *Assessor Instructions*, *Candidate Instructions*, an *Assessment Control Sheet*, and five separate assessment modules (*Assessment Worksheets I-V*). The *Assessor Instructions* describe the assessment objectives, method, performance measures, and performance standards. The *Assessor Instructions* also list the responsibilities of the assessor during each phase of the assessment process. The *Candidate Instructions* explain the assessment process from the candidate's perspective and define the responsibilities of the candidate.

The *Assessment Control Sheet* provides a record of the names of the candidate, assessor, and qualified instructor who certified that the candidate met the training prerequisites for assessment. The control sheet also includes the date and location of the assessment and the STCW reference information for the competency area being assessed. Section 3 of the *Assessment Control Sheet* provides space for the assessor to record the candidate's score on each assessment objective. Finally, section 4 of the control sheet summarizes the assessment objectives and the actions comprising each objective.

As the assessor, you will evaluate the candidate's ability to complete the assessment objectives correctly. Using the scoring procedures described below, you will provide the candidate with a separate score for each assessment objective and compile these scores into a final score for the entire assessment. The scores for each assessment objective and the candidate's overall score for the entire assessment are to be recorded on the *Assessment Control Sheet*.

The rest of this section briefly describes the various components of this assessment. *Assessment Worksheets I* through *V* provide additional information about the assessment objectives, method, conditions, performance measures, and performance standards.

Assessment Objectives

During this assessment, the candidate should demonstrate the following abilities:

1. Use steering equipment.
2. Use magnetic and gyrocompasses and visual range.
3. Understand and execute helm orders in open waters at sea speed.
4. Perform steering procedures in open waters at sea speed.
5. Understand and execute helm orders in shallow water while maneuvering.

6. Perform steering procedures in shallow water while maneuvering.
7. Understand and execute helm orders while steering by visual range or landmark.
8. Perform steering procedures while steering by visual range or landmark.
9. Perform steering duty changeover.
10. Perform helm relief procedures.
11. Perform helmsman steering failure procedures in open waters at reduced speed.

Assessment Method

Although candidates can demonstrate their knowledge of the helmsman duties in a written test, to ensure proficiency in the actual operating environment, they should undergo assessment requiring practical demonstration either in a bridge simulator or onboard ship. This assessment package can be applied using either method

Assessment Conditions

The assessment should occur at an approved steering station that is fitted with manual and automatic helm modes, gyro repeater, and magnetic compass. Optimally, the steering system should have manual and automatic pilot, non-follow-up unit, navigation modes with adjustable controls, rate of turn indicator, and steering alarms. As noted above, four different conditions are required for this assessment: open waters at sea speed, shallow waters while maneuvering, open waters at reduced speed, and steering by visual range or landmark.

Performance Measures and Standards

Each assessment objective is comprised of one or more actions. Each action has one or more corresponding performance measures and standards. For example, assessment objective 10 requires two different actions (see section 2 of *Assessment Worksheet IV* on p. 15). Note that within one action there may be more than one performance measure. For example, in the case of action 10.1, the candidate has to pass both performance measures in order to pass the action. If a candidate fails one measure, he or she fails the action.

Note that, if a candidate fails an assessment objective, he or she automatically fails the entire assessment. If this occurs, you should terminate the assessment.

Assessment Checklist

The following checklist summarizes the tasks and responsibilities of the assessor at each phase of the assessment process.

Preparing for the Steering Assessment

- ☐ Gather steering assessment materials.
- ☐ Prepare the assessment area(s), test facility, and/or bridge.

- ❑ Prepare and arrange for necessary steering equipment, and ensure that all equipment is operational.
- ❑ Review the *Assessment Control Sheet*, *Assessment Worksheets*, and *Candidate Instructions*.
- ❑ If you are using a simulator, check all exercise scenarios to ensure they include the required assessment conditions:
 - Open waters at sea speed (*Assessment Worksheet I*).
 - Shallow water while maneuvering (*Assessment Worksheet II*).
 - Steering by visual range or landmark (*Assessment Worksheet III*).
 - Any of the above (*Assessment Worksheet IV*).
 - Open waters at reduced speed (*Assessment Worksheet V*).
- ❑ If you are conducting a shipboard assessment, ensure that the appropriate conditions are present for each *Assessment Worksheet* and that the vessel is clear of navigational hazards. A steering failure drill may be simulated to fulfill the conditions required for *Assessment Worksheet V*.
- ❑ Identify and observe necessary safety precautions.
- ❑ Schedule assessment and inform all affected personnel.

Briefing the Candidate before the Assessment

- ❑ Provide the candidate with a copy of the *Candidate Instructions* and *Assessment Control Sheet*.
- ❑ Review the steering assessment instructions with the candidate and answer any questions.
- ❑ Discuss the assessment objectives and explain any that require the use of non-standard procedures.
- ❑ Explain the steering assessment performance measures and standards.
- ❑ Advise the candidate of the time constraints, including when the assessment will begin and under what circumstances the assessment will be terminated.
- ❑ Inform the candidate that he or she should use appropriate marine terminology and nomenclature during all phases of the assessment.
- ❑ Discuss the desired outcome(s) and consequences of failing to perform part or all of the steering assessment.
- ❑ Remind the candidate that it is permissible to ask questions during the assessment, especially if he or she has a safety concern.
- ❑ Inform the candidate that all phases of the assessment are to be conducted in English.
- ❑ Discuss the candidate's willingness to be assessed under the circumstances presented.

Observing the Candidate's Performance

- ❑ If a safety violation occurs, terminate the assessment immediately.
- ❑ Continuously observe the candidate during the assessment. Require that standard procedures or company policy be adhered to, except when assessment procedures require demonstration of knowledge or skill different from a convention adopted by the company.
- ❑ Give the candidate at least five helm commands during a 30-minute period on the helm.
- ❑ Ensure realistic assessment conditions consistent with a normal working environment for the helmsman. Ensure that the candidate can concentrate on the task at hand. Do not allow other crew members to interfere with the assessment. Do not allow the candidate to “learn the test” by observing the performance of other assessment candidates.
- ❑ Avoid giving the candidate unsolicited assistance, but respond to appropriate questions and provide appropriate equipment when required.
- ❑ Remain objective and maintain positive control of the assessment process at all times.

Recording Results and Determining Assessment Outcome

- ❑ Record performance on the appropriate steering assessment worksheet.
- ❑ The steering standards specified on each *Assessment Worksheet* may be modified to compensate for the area of navigation and prevailing sea state, but otherwise strictly adhere to the prescribed scoring procedure(s).
- ❑ Determine and document the outcome of the assessment, then transfer the final results to the *Assessment Control Sheet*.
- ❑ Attest to successful demonstration of tasks in the Training Record Book (TRB), if appropriate.

Debriefing the Candidate

- ❑ Debrief the candidate as soon as possible after the assessment.
- ❑ Provide the candidate with a copy of the *Assessment Control Sheet*.
- ❑ Restate the assessment objectives.
- ❑ Focus on positive accomplishments first.
- ❑ Identify areas needing improvement.
- ❑ If the candidate failed to demonstrate proficiency, jointly develop an improvement plan to prepare for reassessment.

CANDIDATE INSTRUCTIONS

In this assessment, you will be evaluated on your ability to perform helmsman duties. Table 1 shows the 1995 *STCW Code* specification for the performance of helmsman duties.

Table 1. *STCW Code* specification for the performance of helmsman duties.

STCW Requirement	1995 <i>STCW Code</i> , Section A-II/4 (p. 68): Mandatory minimum requirements for certification of ratings forming part of a navigational watch.
STCW Function	Navigation at the support level.
STCW Competence	Steer the ship and comply with helm orders also in the English language.
STCW Proficiency	Performance of helmsman duties.

Assessment Objectives and Methods

A qualified assessor will assess you on your ability to meet the 11 assessment objectives in the first column of Table 2. Note that each assessment objective has a corresponding assessment method(s). Performance assessed by “practical skill demonstration” means your assessor will ask you to demonstrate your ability to perform the actions required in the objective. Performance assessed by “oral or written test questions” means your assessor will ask you to respond to one or more questions. He or she will assess your ability to respond correctly to each question. Your practical skill demonstration will occur either onboard ship while underway or in a ship bridge simulator.

Table 2. Assessment objectives and methods for helmsman duties.

Assessment Objective	Assessment Method
1. Demonstrate use of steering equipment.	Practical skill demonstration – shipboard and/or ship bridge simulator, oral or written test questions
2. Demonstrate the use of magnetic and gyrocompasses and visual range.	Practical skill demonstration – shipboard and/or ship bridge simulator, oral or written test questions
3. Demonstrate understanding and execution of helm orders in open waters at sea speed.	Practical skill demonstration – shipboard and/or ship bridge simulator
4. Perform steering procedures in open waters at sea speed.	Practical skill demonstration – shipboard and/or ship bridge simulator
5. Demonstrate understanding and execution of helm orders in shallow water while maneuvering.	Practical skill demonstration – shipboard and/or ship bridge simulator
6. Perform steering procedures in shallow water while maneuvering.	Practical skill demonstration – shipboard and/or ship bridge simulator

Assessment Objective	Assessment Method
7. Demonstrate understanding and execution of helm orders while steering by visual range or landmark.	Practical skill demonstration – shipboard and/or ship bridge simulator
8. Perform steering procedures while steering by visual range or landmark.	Practical skill demonstration – shipboard and/or ship bridge simulator
9. Demonstrate steering duty changeover.	Practical skill demonstration – shipboard and/or ship bridge simulator
10. Perform helm relief procedures.	Practical skill demonstration – shipboard and/or ship bridge simulator, oral or written test questions
11. Demonstrate helmsman steering failure procedures.	Practical skill demonstration – shipboard and/or ship bridge simulator

Refer to section 4 of the *Assessment Control Sheet* for a list of the specific actions required for each objective (you should receive a copy of this document from the assessor during your pre-assessment briefing). Below are some general guidelines for what you should expect during the assessment process.

Pre-Assessment Briefing with Assessor

This briefing should occur approximately a week in advance of the scheduled assessment, if possible. This will help you and the assessor to be well prepared for the assessment when it actually occurs. During this briefing, you should:

- Discuss your prior experience, training, and/or company policy with the assessor. On the basis of these qualifications, discuss whether you are qualified to undertake the helmsman assessment. If you both agree you are qualified, then continue with the assessment process. If not, arrange for additional on-the-job or simulator training, and set a date for another review of your qualifications.
- Obtain a copy of the *Assessment Control Sheet* from your assessor. Review it and discuss the scope and depth of knowledge covered by the helmsman assessment. Note that the assessment is to be conducted in the English language. Ask questions about any part of the assessment that is unclear.
- Review the helmsman assessment performance measures and standards, and ask any questions you have about them.
- Discuss the desired outcome(s) and the consequences of failing to perform any part of the helmsman assessment.
- Discuss the general helmsman assessment procedures. Your assessor will inform you of how much time is allowed, when the assessment begins, and under what circumstances he or she will terminate the assessment.

- Discuss any non-standard procedures that are expected of you during the assessment.
- Consider whether you are willing to be assessed under the circumstances presented and advise the assessor of your willingness to undertake the assessment.

Participation in the Assessment

Your assessor will continuously observe you during the assessment. You are expected to adhere to standard procedures or company policy unless the assessor briefs you on a requirement to perform a non-standard procedure. During the assessment, remember to:

- Use appropriate marine terminology and nomenclature at all times.
- Listen to an entire question before responding or acting. Remember that you may not use reference material of any kind during the assessment examination.
- Ask questions if you have a safety concern. The assessor will provide you with appropriate responses to your questions. If a safety violation occurs, the assessor will terminate the assessment immediately.

Your assessor will ensure realistic assessment conditions consistent with the normal working environment for a helmsman.

The Outcome of Your Assessment

The assessor will record your performance on a series of *Assessment Worksheets*. The assessor will score each assessment objective on a “Pass/Fail” basis. Acceptable performance (a “Pass” score) will be based on your demonstrated ability to correctly respond to the questions that you are asked during the examination portions of the assessment. It will also be based on your ability to safely perform assigned tasks in a manner that demonstrates you possess the required level of skill, knowledge, and ability, as well as sound and professional judgment.

Unacceptable performance (a “Fail” score) will be based on your failure to perform a critical phase of the assessment exercise at an acceptable level of proficiency. When this occurs, your assessment will be suspended and postponed until you receive further instruction and training.

Note that the following events will terminate an assessment immediately:

- An action, or lack of action, by you which required corrective action or intervention by the assessor to prevent injury, damage, or the development of a hazardous condition.
- Your failure to use proper procedures, including appropriate communication procedures, during the assessment.
- Your failure to take prompt corrective action when required.

The assessor will strictly adhere to pre-determined scoring procedures, and will document the outcome of the assessment. He or she will transfer the final results of your assessment to the *Assessment Control Sheet*.

Assessment Debriefing

You and the assessor should discuss the assessment results as soon as possible after the assessment. During the debriefing:

- The assessor should provide you with a copy of the *Assessment Control Sheet* describing the results of your helmsman assessment.
- The assessor should restate the assessment objective(s) and identify those that you successfully demonstrated.
- If appropriate, you and the assessor should discuss the areas in which you need improvement, and then develop an improvement plan based on the helmsman assessment outcome(s).

ASSESSMENT CONTROL SHEET

Section 1. Assessment Reference Information

1. Name of Candidate	2. Name of Designated Assessor	3. Signature of Qualified Instructor ¹
4. Date of Assessment	5. Assessment Location ²	

Section 2. STCW Reference Information

Assessment Area	<i>Performance of helmsman duties.</i>
Assessment Method	Shipboard and/or ship bridge simulator assessment.
STCW Requirement	STCW Code, Section A-II/4, p. 68 – Mandatory minimum requirements for certification of ratings forming part of a navigational watch.
STCW Function	Navigation at the support level.
STCW Competence	Steer the ship and comply with helm orders also in the English language.
STCW Proficiency	Performance of helmsman duties.

Section 3. Assessment Objectives, Methods, and Scores

Assessment Objective	Assessment Methods	Score
1. Demonstrate use of steering equipment.	Practical skill demonstration – shipboard and/or ship bridge simulator, oral test questions	<input type="checkbox"/> Pass <input type="checkbox"/> Fail
2. Demonstrate the use of magnetic, gyrocompasses and visual range.	Practical skill demonstration – shipboard and/or ship bridge simulator, oral test questions	<input type="checkbox"/> Pass <input type="checkbox"/> Fail
3. Demonstrate understanding and execution of helm orders <i>in open waters at sea speed.</i>	Practical skill demonstration – shipboard and/or ship bridge simulator	<input type="checkbox"/> Pass <input type="checkbox"/> Fail
4. Perform steering procedures <i>in open waters at sea speed.</i>	Practical skill demonstration – shipboard and/or ship bridge simulator	<input type="checkbox"/> Pass <input type="checkbox"/> Fail
5. Demonstrate understanding and execution of helm orders <i>in shallow water while maneuvering.</i>	Practical skill demonstration – shipboard and/or ship bridge simulator	<input type="checkbox"/> Pass <input type="checkbox"/> Fail
6. Perform steering procedures <i>in shallow water while maneuvering.</i>	Practical skill demonstration – shipboard and/or ship bridge simulator	<input type="checkbox"/> Pass <input type="checkbox"/> Fail
7. Demonstrate understanding and execution of helm orders <i>while steering by visual range or landmark.</i>	Practical skill demonstration – shipboard and/or ship bridge simulator	<input type="checkbox"/> Pass <input type="checkbox"/> Fail
8. Perform steering procedures <i>while steering by visual range or landmark.</i>	Practical skill demonstration – shipboard and/or ship bridge simulator	<input type="checkbox"/> Pass <input type="checkbox"/> Fail
9. Demonstrate steering duty changeover.	Practical skill demonstration – shipboard and/or ship bridge simulator	<input type="checkbox"/> Pass <input type="checkbox"/> Fail
10. Perform helm relief procedures.	Practical skill demonstration – shipboard and/or ship bridge simulator, oral test questions	<input type="checkbox"/> Pass <input type="checkbox"/> Fail
11. Demonstrate helmsman steering failure procedures.	Practical skill demonstration – shipboard and/or ship bridge simulator	<input type="checkbox"/> Pass <input type="checkbox"/> Fail
COMMENTS:	FINAL SCORE	<input type="checkbox"/> Pass <input type="checkbox"/> Fail

¹ The qualified instructor certifies that the candidate has met the training prerequisites.

² Write the name of the simulator or vessel used and her location during the assessment

Section 4. Assessment Worksheet Summary

Assessment Worksheet	Assessment Objective	Action
I	<p>1. Demonstrate the use of steering equipment.</p> <p>2. Demonstrate the use of magnetic and gyrocompasses and visual range.</p> <p>3. Demonstrate understanding and execution of helm orders <i>in open waters at sea speed (water depth = 6 times draft or more)</i>.</p> <p>4. Perform steering procedures <i>in open waters at sea speed</i>.</p>	<p>1.1 Use and adjustment of steering controls.</p> <p>1.2 Use of the steering compass.</p> <p>1.3 Use of the rudder angle indicator.</p> <p>1.4 Use of the rate of turn indicator.</p> <p>1.5 Use of steering system alarms.</p> <p>1.6 Use and adjustment of the course recorder.</p> <p>2.1 Compare and report course by gyro and magnetic after course change.</p> <p>2.2 Compare and report course by gyro and magnetic at time interval specified by standing orders or company policy.</p> <p>2.3 Report course by gyro and magnetic to the watch officer when changes in compared headings are noted.</p> <p>3.1 Repeat helm command as given.</p> <p>3.2 Execute course change.</p> <p>3.3 Execute helm order.</p> <p>3.4 Report helm order.</p> <p>3.5 Report conflicts in commands.</p> <p>4.1 Steer by gyrocompass.</p> <p>4.2 Steer by magnetic compass.</p> <p>4.3 Steer by visual range or landmark.</p>
II	<p>5. Demonstrate understanding and execution of helm orders <i>in shallow water while maneuvering (water depth = 1.5 times draft or less)</i>.</p> <p>6. Perform steering procedures <i>in shallow water while maneuvering</i>.</p>	<p>5.1 Repeat helm command as given.</p> <p>5.2 Execute course change.</p> <p>5.3 Execute helm order.</p> <p>5.4 Report helm order.</p> <p>5.5 Report command conflicts.</p> <p>6.1 Steer by gyrocompass.</p> <p>6.2 Steer by magnetic compass.</p> <p>6.3 Steer by visual range or landmark.</p>

Section 4. Assessment Worksheet Summary (continued)

III	<p>7. Demonstrate understanding and execution of helm orders <i>while steering by visual range or landmark.</i></p> <p>8. Perform steering procedures <i>while steering by visual range or landmark.</i></p>	<p>7.1 Repeat helm command as given. 7.2 Execute course change. 7.3 Execute helm order. 7.4 Report helm order. 7.5 Report command conflicts.</p> <p>8.1 Steer by gyrocompass. 8.2 Steer by magnetic compass. 8.3 Steer by visual range or landmark.</p>
IV	<p>9. Demonstrate steering duty changeover.</p> <p>10. Perform helm relief procedures.</p>	<p>9.1 Changeover steering pumps. 9.2 Changeover steering motors. 9.3 Engage/disengage autopilot. 9.4 Engage/disengage non-follow-up unit (NFU).</p> <p>10.1 Hand over the helm. 10.2 Relieving the wheel during a maneuver.</p>
V	11. Demonstrate helmsman steering failure procedures.	11.1 Respond to steering failure.

ASSESSMENT WORKSHEET I

Section 1. Assessment Conditions

Assessment Objectives	<ol style="list-style-type: none"> 1. Demonstrate the use of steering equipment. 2. Demonstrate the use of magnetic and gyrocompasses and visual range. 3. Demonstrate understanding and execution of helm orders in open waters at sea speed (water depth = 6 times draft or more). 4. Perform steering procedures in open waters at sea speed.
Assessment Method	Shipboard assessment and/or ship bridge simulator assessment.
Candidate Orientation	Assessor briefs the candidate on assessment methods, conditions, and standards.
Required Equipment, Apparatus, and/or Tools	The candidate should be posted at an approved steering station fitted with manual and automatic helm modes, gyro repeater, and magnetic compass. Optimally, the steering system should have manual and automatic pilot, non-follow-up unit, and navigation modes with adjustable controls, rate of turn indicator, and steering alarms.
Initial Condition	This assessment should occur <i>in open waters at sea speed</i> . Water depth must be at least six times vessel draft or more.

Section 2. Actions, Performance Measures, Standards, and Scores

Action	Performance Measure	Performance Standard	Score
1.1 Use and adjustment of steering controls.	Ensures that heading is maintained	Operation of steering controls is consistent with manufacturer's recommendations.	<input type="checkbox"/> Pass <input type="checkbox"/> Fail
1.2 Use of the steering compass.	Ensures that heading is maintained	Operation of steering compass is consistent with manufacturer's recommendations.	<input type="checkbox"/> Pass <input type="checkbox"/> Fail
1.3 Use of the rudder angle indicator.	Ensures that heading is maintained	Operation of rudder angle indicator is consistent with manufacturer's recommendations.	<input type="checkbox"/> Pass <input type="checkbox"/> Fail
1.4 Use of the rate of turn indicator.	Ensures that heading is maintained	Operation of rate of turn indicator is consistent with manufacturer's recommendations.	<input type="checkbox"/> Pass <input type="checkbox"/> Fail
1.5 Use of steering system alarms.	Ensures that heading is maintained	Operation of steering system alarms is consistent with manufacturer's recommendations.	<input type="checkbox"/> Pass <input type="checkbox"/> Fail
1.6 Use and adjustment of the course recorder.	Ensures that heading is maintained	Operation of course recorder is consistent with manufacturer's recommendations.	<input type="checkbox"/> Pass <input type="checkbox"/> Fail
2.1 Compare and report course by gyro and magnetic after course change.	Report of compass comparison	Correct report after course change.	<input type="checkbox"/> Pass <input type="checkbox"/> Fail
2.2 Compare and report course by gyro and magnetic at time interval specified by stand orders or company policy.	Report of compass comparison	Correct report at the time interval specified in the standing orders or company policy not to exceed 15 minutes.	<input type="checkbox"/> Pass <input type="checkbox"/> Fail

Section 2. Actions, Performance Measures, Standards, and Scores (continued)

Action	Performance Measure	Performance Standard	Score
2.3 Report course by gyro and magnetic to the watch officer when changes in compared headings are noted.	Report of compass comparison	Correct report when changes in compared headings are noted.	<input type="checkbox"/> Pass <input type="checkbox"/> Fail
3.1 Repeat helm command as given.	Repetition of steering order	Repeats helm command word-for-word using standard nomenclature and terminology in compliance with standing orders or company policy.	<input type="checkbox"/> Pass <input type="checkbox"/> Fail
3.2 Execute course change.	Execution of course change	Standard is to perform all of the following: <input type="checkbox"/> Applies appropriate amount of rudder to actuate controllable turn rate. <input type="checkbox"/> Approaches ordered course, recognizes turn rate. <input type="checkbox"/> Checks swing, applies counter rudder as necessary. <input type="checkbox"/> Steadies up on ordered course.	<input type="checkbox"/> Pass <input type="checkbox"/> Fail
3.3 Report helm order.	Answers question: <i>What is the chain of command among the bridge team?</i>	Report as soon as the order and/or action has been completed.	<input type="checkbox"/> Pass <input type="checkbox"/> Fail
3.4 Understand procedure for conflicting commands.	Reports chain of command	States that the master's orders are to be obeyed whenever there is conflict between members of the bridge team.	<input type="checkbox"/> Pass <input type="checkbox"/> Fail
4.1 Steer by gyrocompass.	Ensures that heading is maintained	Maintains heading $\pm 3^\circ$.	<input type="checkbox"/> Pass <input type="checkbox"/> Fail
4.2 Steer by magnetic compass.	Ensures that heading is maintained	Maintains heading $\pm 5^\circ$.	<input type="checkbox"/> Pass <input type="checkbox"/> Fail
4.3 Steer by visual range or landmark.	Ensures that heading is maintained	Standard is to: <input type="checkbox"/> Identify range. <input type="checkbox"/> Apply rudder to correct side. <input type="checkbox"/> Maintain forward and after range in a vertical line.	<input type="checkbox"/> Pass <input type="checkbox"/> Fail
COMMENTS:		FINAL SCORE	<input type="checkbox"/> Pass <input type="checkbox"/> Fail

Section 3. Additional Assessor Guidance

- The assessor should give the candidate at least five helm commands during this part of the assessment.
- The specified steering standards may be modified to compensate for the area of navigation and prevailing sea state.

ASSESSMENT WORKSHEET II

Section 1. Assessment Conditions

Assessment Objectives	<p>5. <i>Demonstrate the use of magnetic and gyrocompasses and visual range in shallow water while maneuvering.</i></p> <p>6. <i>Perform steering procedures in shallow water while maneuvering.</i></p>
Assessment Method	Shipboard assessment and/or ship bridge simulator assessment.
Candidate Orientation	Assessor briefs the candidate on assessment methods, conditions, and standards.
Required Equipment, Apparatus, and/or Tools	The candidate should be posted at an approved steering station fitted with manual and automatic helm modes, gyro repeater, and magnetic compass. Optimally, the steering system should have manual and automatic pilot, non-follow-up unit, and navigation modes with adjustable controls, rate of turn indicator, and steering alarms.
Initial Condition	This assessment should occur in shallow water while maneuvering. Water depth must be no more than 1.5 times vessel draft.

Section 2. Actions, Performance Measures, Standards, and Scores

Action	Performance Measure	Performance Standard	Score
5.1 Repeat helm command as given.	Repeats steering order	Repeats helm command exactly using standard nomenclature and terminology in compliance with standing orders or company policy.	<input type="checkbox"/> Pass <input type="checkbox"/> Fail
5.2 Execute course change.	Executes course change	Standard is to: <ul style="list-style-type: none"> <input type="checkbox"/> Apply appropriate amount of rudder to actuate controllable turn rate. <input type="checkbox"/> Approach ordered course, recognizes turn rate. <input type="checkbox"/> Check swing, apply counter rudder as necessary. <input type="checkbox"/> Steady up on ordered course. 	<input type="checkbox"/> Pass <input type="checkbox"/> Fail
5.3 Report helm order.	Reports steering order	Complies with standard helm orders.	<input type="checkbox"/> Pass <input type="checkbox"/> Fail
5.4 Understand procedure for conflicting commands.	Reports of chain of command	States that the master's orders are to be obeyed whenever there is conflict between members of the bridge team.	<input type="checkbox"/> Pass <input type="checkbox"/> Fail
6.1 Steer by gyrocompass.	Ensures that heading is maintained	Maintains heading $\pm 2^\circ$.	<input type="checkbox"/> Pass <input type="checkbox"/> Fail
6.2 Steer by magnetic compass.	Ensures that heading is maintained	Maintains heading $\pm 3^\circ$.	<input type="checkbox"/> Pass <input type="checkbox"/> Fail
6.3 Steer by visual range or landmark.	Ensures that heading is maintained	Standard is to: <ul style="list-style-type: none"> <input type="checkbox"/> Identify range. <input type="checkbox"/> Apply rudder to correct side. <input type="checkbox"/> Maintain forward and after range in a vertical line. 	<input type="checkbox"/> Pass <input type="checkbox"/> Fail
COMMENTS:		FINAL SCORE	<input type="checkbox"/> Pass <input type="checkbox"/> Fail

ASSESSMENT WORKSHEET III

Section 1. Assessment Conditions

Assessment Objectives	7. <i>Demonstrate understanding and execution of helm orders while steering by visual range or landmark.</i> 8. <i>Perform steering procedures while steering by visual range or landmark.</i>
Assessment Method	Shipboard assessment and/or ship bridge simulator assessment.
Candidate Orientation	Assessor briefs the candidate on assessment methods, conditions, and standards.
Required Equipment, Apparatus, and/or Tools	The candidate should be posted at an approved steering station fitted with manual and automatic helm modes, gyro repeater, and magnetic compass. The steering system should have manual and automatic pilot, non-follow-up unit, and navigation modes with adjustable controls, rate of turn indicator, and steering alarms.
Initial Condition	This assessment should occur in conditions requiring steering by visual range or landmark.

Section 2. Actions, Performance Measures, Standards, and Scores

Action	Performance Measure	Performance Standard	Score
7.1 Repeat helm command as given.	Repeats steering order	Repeats helm command exactly using standard nomenclature and terminology in compliance with standing orders or company policy.	<input type="checkbox"/> Pass <input type="checkbox"/> Fail
7.2 Execute course change.	Executes course change	<input type="checkbox"/> Applies appropriate amount of rudder to actuate controllable turn rate. <input type="checkbox"/> Approaches ordered course, recognizes turn rate. <input type="checkbox"/> Checks swing, applies counter rudder as necessary. <input type="checkbox"/> Steadies up on ordered course	<input type="checkbox"/> Pass <input type="checkbox"/> Fail
7.3 Report helm order.	Reports steering order	Complies with standard helm orders.	<input type="checkbox"/> Pass <input type="checkbox"/> Fail
7.4 Understand procedure for conflicting commands.	Reports of chain of command	States that the master's orders are to be obeyed whenever there is conflict between members of the bridge team.	<input type="checkbox"/> Pass <input type="checkbox"/> Fail
8.1 Steer by gyrocompass.	Ensures that heading is maintained	Maintains heading $\pm 3^\circ$ (open waters). Maintains heading $\pm 2^\circ$ (shallow water).	<input type="checkbox"/> Pass <input type="checkbox"/> Fail
8.2 Steer by magnetic compass.	Ensures that heading is maintained	Maintains heading $\pm 5^\circ$ (open waters). Maintains heading $\pm 3^\circ$ (shallow water).	<input type="checkbox"/> Pass <input type="checkbox"/> Fail
8.3 Steer by visual range or landmark.	Ensures that heading is maintained	Standard is to : <input type="checkbox"/> Identify range. <input type="checkbox"/> Apply rudder to correct side. <input type="checkbox"/> Maintain forward and after range in a vertical line.	<input type="checkbox"/> Pass <input type="checkbox"/> Fail
COMMENTS:		FINAL SCORE	<input type="checkbox"/> Pass <input type="checkbox"/> Fail

ASSESSMENT WORKSHEET IV

Section 1. Assessment Conditions

Assessment Objectives	9. Demonstrate steering duty changeover. 10. Perform helm relief procedures.
Assessment Method	Shipboard assessment and/or ship bridge simulator assessment, oral test questions.
Candidate Orientation	Assessor briefs the candidate on assessment methods, conditions, and standards.
Required Equipment, Apparatus, and/or Tools	The candidate should be posted at an approved steering station fitted with manual and automatic helm modes, gyro repeater and magnetic compass. Optimally, the steering system should have a manual, automatic pilot, NFU, and navigation modes with adjustable controls, rate of turn indicator, and steering alarms.
Initial Condition	This assessment can be conducted in any of the following conditions: <ul style="list-style-type: none"> • Open waters at sea speed (water depth = 6 times draft or more). • Shallow water while maneuvering (water depth = 1.5 times draft or less). • Steering by visual range or landmark.

Section 2. Actions, Performance Measures, Standards, and Scores

Action	Performance Measure	Performance Standard	Score
9.1 Changeover steering pumps.	Ensures changeover of steering pumps	Changeover procedure is consistent with manufacturer's recommendations.	<input type="checkbox"/> Pass <input type="checkbox"/> Fail
9.2 Changeover steering motors.	Ensures changeover of steering motors	Changeover procedure is consistent with manufacturer's recommendations.	<input type="checkbox"/> Pass <input type="checkbox"/> Fail
9.3 Engage/ disengage autopilot.	Ensures that autopilot is engaged/disengaged	Changeover procedure is consistent with manufacturer's recommendations.	<input type="checkbox"/> Pass <input type="checkbox"/> Fail
9.4 Engage/disengage non-follow-up unit.	Ensures that NFU is engaged/disengaged	Changeover procedure is consistent with manufacturer's recommendations.	<input type="checkbox"/> Pass <input type="checkbox"/> Fail
10.1 Hand over the helm.	<p>Answers question: <i>What should you report when handing over the helm to your relief, and to whom should you report this?</i></p> <p>Answers question: <i>What position should the rudder be in when the helm is relieved?</i></p>	<p>Correct report includes all of the following:</p> <ul style="list-style-type: none"> <input type="checkbox"/> The mode of operation [hand, autopilot, non-follow-up unit (NFU)]. <input type="checkbox"/> Steering unit in use (port or starboard steering unit). <input type="checkbox"/> Vessel's heading: <ul style="list-style-type: none"> • True course. • Gyro course. • Magnetic compass course. <input type="checkbox"/> The amount of helm carried to maintain a steady course, when appropriate. <p>Helmsman who has been relieved should report the above information to the officer of the navigational watch after being relieved.</p> <p>The helm should be relieved with no rudder.</p> <p>Ensure that the helmsman checks the course recorder chart at the completion of his or her trick on the wheel whether steering by hand, autopilot or non-follow-up unit (NFU).</p>	<input type="checkbox"/> Pass <input type="checkbox"/> Fail

Section 2. Actions, Performance Measures, Standards, and Scores (continued)

10.2 Relieving the wheel during a maneuver	Answers question: <i>Under what circumstances should the wheel be relieved during a maneuver?</i>	Correct response is <i>never</i> . Under no circumstances should the wheel be relieved during a maneuver.	<input type="checkbox"/> Pass <input type="checkbox"/> Fail
COMMENTS:		FINAL SCORE	<input type="checkbox"/> Pass <input type="checkbox"/> Fail

ASSESSMENT WORKSHEET V

Section 1. Assessment Conditions

Assessment Objective	<i>11. Demonstrate helmsman steering failure procedures.</i>
Assessment Method	Shipboard assessment and/or ship bridge simulator assessment.
Candidate Orientation	Assessor briefs the candidate on assessment methods, conditions, and standards.
Required Equipment, Apparatus, and/or Tools	The candidate should be posted at an approved steering station fitted with manual and automatic helm modes, gyro repeater, magnetic compass, optimally the steering system should have a manual, automatic pilot, NFU and navigation modes with adjustable controls, rate of turn indicator, and steering alarms.
Initial Condition	This assessment should be conducted in open waters at reduced speed (water depth = 6 times draft or more). The vessel should be clear of navigational hazards. A steering failure drill may be simulated for purpose of this assessment. Standing orders or company policy must be strictly adhered to during the all phases of the assessment.

Section 2. Action, Performance Measure, Standards, and Score

Action	Performance Measure	Performance Standard	Score
11.1 Respond to steering failure.	Responds to steering failure	<input type="checkbox"/> Helmsman reports steering failure to the officer of the navigational watch. <input type="checkbox"/> Alternative and/or emergency steering system is engaged.	<input type="checkbox"/> Pass <input type="checkbox"/> Fail
COMMENTS:		FINAL SCORE	<input type="checkbox"/> Pass <input type="checkbox"/> Fail

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